#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004011 Address: 333 Burma Road **Date Inspected:** 03-Sep-2008

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Yang / Guo Yan Fei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** tower stiffener to skin plate assemblies

### **Summary of Items Observed:**

Tower shop - Bay 1

QA Inspector randomly observed approximately 65 ZPMC workers performing the following: flame cutting of plates; grinding of fill passes of stiffener to SSD1 – skin C; preheat and SMAW of several marked areas of stiffener to SSD1 – skin C, weld joints SSD1-SA179C/E-18 & 17; heat straightening of stiffeners and skin plates; FCAW-G of stiffener to SSD1 – skin B and air-arcing of 600mm of the west end of the entire stiffener B4 to SSD1 - skin B weld. Also present in this bay and monitoring the above noted welding were ZPMC CWI Liu Yang as well as ABF QC's Yang Yi Heng, C.K. Chan, and ZPMC QC Zhang Jiadi. Items observed appeared to comply with project specifications except for the following: QA Inspector observed a ZPMC welder performing SMAW of machined 75mm radius on four stiffeners. See conversation below.

#### Tower shop - Bay 2

QA Inspector randomly observed approximately 60 ZPMC workers performing the following: FCAW-G on a tilted up ESD1 – skin E; preheating and FCAW-G tacking of stiffeners to ESD1 – skin C. Also present in this bay were ZPMC CWI's Guo Yan Fei, Zhu Zhong Hai, and CAWI Liu Dao Feng as well as ABF You Yuan Mao and C. K. Chan. Items observed appeared to comply with project specifications.

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)





## **Summary of Conversations:**

QA Inspector asked ZPMC QC Zhang Jiadi (ZPMC QC) for the repair procedure being used to fill the 75mm radius in the ends of 4 stiffeners. ZPMC QC provided QA Inspector with a copy of a ZPMC Welding Repair Report showing FCAW as the process for filling in the 75mm radius on two stiffener plates. QA Inspector pointed out to ZPMC QC that the welder was using SMAW on four stiffener plates. ABF QC C.K. Chan (ABF QC) told QA Inspector that ABF QC would write an incident report and attempt to resolve this issue.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 136-6471-0411, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer